UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>01 July 2008</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-34</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-34</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This **Non-Final Office Action** is responsive to 1 July 2008. Currently **Claims 1-
34** are pending.

        This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

Response to Arguments

        The applicants' arguments have been fully considered but are not persuasive.

        The applicant argues at length regarding the taking of Official Notice in the

rejections and further attempts to traverse the taking of the Official Notice.

        The examiner respectfully disagrees.

        While the applicant generally traverses the taking of Official Notice, nowhere

does the applicant provide any evidence or specific argument that any of the instances

of Official Notice are not old and well known in the art. The examiner would point out

two facts from the MPEP to the applicant regarding Official Notice. The first is that

Official Notice may not be used regarding esoteric elements of technology (from the

MPEP "**For example, assertions of technical facts in the areas of esoteric**

technology or specific knowledge of the prior art". The examiner's position is that

none of the takings of Official Notice regard esoteric facts. For example, the examiner

took ON that it is old and well known in an organization for individuals to perform

different tasks. And further the examiner took ON that it is old and well known to

remove outliers from a probabilistic distribution. These are not esoteric elements. Is

the applicant arguing that these are the esoteric, cutting edge elements of the

invention?

The second thing that the examiner would point out to the applicant is that an

effective traversal of Official Notice requires "**To adequately traverse such a finding,**

an applicant must specifically point out the supposed errors in the examiner's

action, which would include stating why the noticed fact is not considered to be

common knowledge or well-known in the art. See 37 CFR 1.111(b). " The applicant

has not specifically pointed out why the ON's are not considered to be common

knowledge in the prior art. The blanket traversals by the applicant does not meet this

standard.

Because the traversal is a blanket traversal, the MPEP provides the examiner for

"**If applicant does not traverse the examiner's assertion of official notice or**

applicant's traverse is not adequate, the examiner should clearly indicate in the

next Office action that the common knowledge or well-known in the art statement

is taken to be admitted prior art because applicant either failed to traverse the

examiner's assertion of official notice or that the traverse was inadequate." As the examiner had indicated above why the traversal is inadequate, the subjects of the Official Notices are taken to be admitted prior art.

The applicant argues that the examiner has not provided a prima facie case of obviousness. The applicants put forth several pages of argument on pages 13-14

The examiner respectfully disagrees.

These arguments fail to conform to 37 CFR 1.111(b) because they fail to provide any substantive argument as to why a prima facie case of obviousness has not been made.

The applicant argues that the cited reference fails to teach generating sets of task scores based on a selected model design of said task assignments.

The examiner respectfully disagrees.

On page 345 in his discussion about multi-attribute utility analysis Roth notes "Organizational productivity scholars have also found that groups and organizations generally have at least 3 to 5 dimensions on which they must perform". Also Roth notes that "the emphasis on using multiple attributes in MAU appears to fit well with other recent research that suggests performance is mult-dimensional. MAU is known in the art to thus be a technique for incorporating various elements or inputs to determine a score (i.e. multi-attribute). Since Roth suggests that there are multiple dimensions from which a person must perform, this suggests a model of what those dimensions would

be. Job performance, i.e. evaluating a person's performance, as is claimed, is thus met

by measuring a person's performance according to a set of dimensions, i.e. a selected

model design of task assignments. The fact that job performance is taught using MAU

suggests that the activities and tasks that a person performs on their job is something

that would be evaluated using MAU.

On page 348 Roth teaches using PROMES – which utilizes MAU to "measure

multifaceted organizational productivity". On page 352 Roth discusses using measures

to provide performance – since Roth is discussing how to set of the attributes to

measure for an MAU analysis – this meets the claim limitation of a selected model

design of task assignments.

The applicant argues on page 16 that Roth fails to teach the cited limitations of

"performing a plurality of evaluations of said sets of task scores, said evaluations

assigning productivity scores to said sets of task scores".

The examiner respectfully disagrees.

At least the above section in setting up a MAU analysis to evaluate a set of task

assignments suggests performing evaluations to assign scores to the tasks. MAU

analysis in the context of performance management, as taught by Roth, addresses the

need to perform MAU on a variety of tasks to evaluate employees on those tasks.

The applicant argues on page 17 that Roth fails to teach "analyzing said

productivity scores to determine productivity parameters"

The examiner respectfully disagrees.

One of the main ideas behind MAU is to determine how to combine scores to determine what the overall number is that is representative of what is being measured. Knowing how to combine different attributes is a main thrust of MAU analysis. To argue that Roth fails to teach analyzing productivity scores to determine productivity parameters is to ignore one of the main teachings regarding MAU analysis.

For example, on page 341, in the executive summary, Roth states "Multi-attribute utility (MAU) analysis allows decision makers to incorporate multiple outcomes into their analytic decisions, i.e. analyzing productivity scores to determine productivity parameters.

The applicant argues on page 18 that Roth fails to teach applying the parameters determined to employee task scores to determine the performance measure for the employees. The applicant further alleges on page 19 that Roth fails to teach using different utility functions to represent different facts as an input into productivity.

The examiner respectfully disagrees.

The executive summary (abstract) from Roth suggests using the parameters derived from MAU to combine various inputs to determine what an overall score should be. This furthermore is shown on page 343 bottom Roth shows an example of combining scores using an MAU approach. Here also Roth shows combining scores of the cognitive ability test and the interview (i.e. tasks for potential employees).

The applicant argues on page 20 that Roth does not teach using coefficients of utility functions.

The examiner respectfully disagrees.

As per the above example, the measure of cognitive ability and an interview are utility functions since they measure how an applicant will perform. These individual scores are combined with coefficients to determine weighting to determine what the overall score is. So Roth in fact does teach and show coefficients. The use of coefficients to determine weighting in the combination of input functions, where each input function measures a different aspect of utility is what MAU does. MAU answers the question of how to combine different individually measured inputs such that the score is a meaningful representation of how those individual inputs in actuality contribute to the overall measure.

The applicant argues on page 21 that Roth fails to teach the limitations of Claim 8 regarding adding a number of recorded task scores to sets of task scores.

The examiner respectfully disagrees.

As the applicant notes, Roth teaches a panel of people generating sets of scores. Since the panel is generating scores to be used in generating an overall set of scores, this meets the claim limitation. Additionally the claim is indefinite in that it does not recite what the outcome is in the recited adding. Even assuming that Roth does not teach the limitation, the idea of performing addition to modify the scores taught by Roth would have been well within the reach of a person of ordinary skill in the art. The

concept of adding scores would provide a predictable result since it is known, at least, that addition can be performed to adjust scores. For example, on page 350 Roth suggests the use of iteration (i.e. repeatedly adjusting scores by a group for the purpose of developing a more finely tuned, more accurate result). This implies, in a broadest sense, adding new scores to an existing set. In the context of Roth's teaching regarding performing MAU analysis, this suggests combining an old set of scores into a new set for the purpose of developing a better, more accurate result.

The applicant argues on page 22 that Roth fails to teach the limitations of Claim 9 with regard to "sets of task scores are scaled to represent performance by employees over a common work period"

The examiner respectfully disagrees.

Roth teaches the MAU approach where individual scores are combined according to weights - this meets the limitation of scaling task scores to represent performance according to an MAU approach.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-28 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 22 are rejected under 35 U.S.C. 101 based on Supreme Court

precedent, and recent Federal Circuit decisions, the Office's guidance to examiners is

that a § 101 process must (1) be tied to another statutory class (such as a particular

apparatus) or (2) transform underlying subject matter (such as an article or materials) to

a different state or thing. Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook,

437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane

v. Deener, 94 U.S. 780,787-88 (1876).

An example of a method claim that would <u>not</u> qualify as a statutory process

would be a claim that recited purely mental steps. Thus, to qualify as a § 101 statutory

process, the claim should positively recite the other statutory class (the thing or product)

to which it is tied, for example by identifying the apparatus that accomplishes the

method steps, or positively recite the subject matter that is being transformed, for

example by identifying the material that is being changed to a different state.

Here, applicant's method steps, fail the first prong of the new Federal Circuit

decision since they are not tied to another statutory class and can be performed without

the use of a particular apparatus. Thus, **Claims 1 and 22** are non-statutory since it may

be performed within the human mind. Dependent **Claims 2-21 and 23-28** are not

statutory at least for the reasons given above for **Claims 1 and 22**.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   **Claims 1, 8, 9, 10, 11, 12 and 13** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Roth**, Philip; Bobko, Philip; "A Research Agenda for Multi-Attribute

Utility Analysis in Human Resource Management", 1997, Human Resource

Management Review, Volume 7, Number 3, pp.341-368. (hereinafter **Roth**).

Regarding **Claim 1,** Roth teaches:

A method of determining comparable performance measures for

employees having differing task assignments, comprising:

generating sets of task scores based on a selected model design of said

task assignments;

Page 352 para 1 and 2, sets of task scores are generated based on the Multi-

Attribute Utility (MAU) approach to evaluating performance (note on page 1 that MAU

can be used to evaluate job performance).

performing a plurality of evaluations of said sets of task scores, said

evaluations assigning productivity scores to said sets of task scores;

page 343 para 2 and 3, the evaluations of the employees result in sets of task

scores for the various attributes (e.g. interviews and cognitive ability test).

analyzing said productivity scores to determine productivity parameters;

page 353, Section 4 (last para), the combination of the attributes into a single

score requires analyzing the scores to determine the weights (i.e. productivity

parameters) for how they are combined – see also page 354 bottom paragraph – the

MAU approach combines utility functions represented by the different inputs – these

utility functions represent the scored attributes that are weighted and combined for a

single score. This section also discusses that the utility functions that are combined

may be either linear or nonlinear.

and applying said productivity parameters to employee task scores for said

employees to obtain said performance measures for said employees.

page 343 last para, the various score generated in an MAU analysis are

combined such that the result of the MAU analysis results in a single score.

Roth teaches on page 345 para 4-5 that employees have different values of

contribution based on their performance; Also on page 347 Table 1, feedback and goal-

setting is provided for organizational productivity that is multi-faceted – the idea that

there are different factors contributing to productivity.

Roth does not teach where the evaluation method is for evaluating different

employees who are performing different tasks. However, Official Notice is taken that it

is old and well known in the art for individuals in an organization to perform different

tasks. Since Roth teaches using different utility functions that are combined to represent different factors as an input into productivity, it would have been obvious to one of ordinary skill in the art to modify those teachings to include applying the utility function idea to the different tasks performed by different employees, because it would provide a way to provide a comparative measure of different employee's contributions to a firm's productivity, thus improving the ability of the firm to value different employees.

Regarding **Claim 8**, Roth teaches:

The method of claim 1, wherein generating comprises adding a number of recorded task scores to said sets of task scores.

Page 352 last para, the development of various scores by group members suggests the development of more than one set of scores, i.e. thus adding a number of recorded scores to a base set of scores.

Regarding **Claim 9**, Roth teaches:

The method of claim 8, wherein said sets of task scores are scaled to represent performance by employees over a common work period,

page 343 para 3,4, the MAU approach includes combining attributes based on factors (i.e. they are scaled). Since the particular tasks are an interview and a test, this suggests work performed over a common period.

Roth does not teach:

with a fixed number of hours worked.

However Official Notice is taken that using such a measure is known in the art to provide normalization, i.e. a standardization of what time workers work such that a comparison can be made between the amount of work achieved.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Roth's teachings to include measuring productivity over a fixed number of hours, because it would ensure a standard comparison is made between employees.

Regarding **Claim 10**, Roth teaches:

The method of claim 1, wherein said plurality of evaluations are performed by a plurality of evaluators, said evaluators being familiar with said task assignments and with assigning productivity scores.

Page 350 para 2, Roth teaches various techniques for assigning scores where the assigners are familiar with what is being rated and in assigning scores.

Regarding **Claim 11**, Roth teaches:

The method of claim 10, comprising:

assigning evaluator parameters to each of said plurality of evaluators;

page 357 last para, parameters are assigned to the evaluators such that correlation coefficients are calculated.

comparing said plurality of productivity scores assigned by each of said

evaluators using said evaluator parameters in analyzing said productivity scores

page 357 last para, correlation coefficients are compared across the evaluators.

Roth does not teach where the scores are compared **to determine anomalous**

ones of said plurality of evaluations;

removing said anomalous ones of said plurality of evaluations; and

returning to analyzing said productivity scores.

However, Official Notice is taken that it is old and well known in the art to

determine and remove anomalous data points for the purpose of improving accuracy of

results in an analysis.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Roth to include determining and removing

anomalous scores, because it would improve the accuracy of the overall MAU analysis.

Claim 12 recites limitations addressed by the rejection of **Claim 9** above, and is

therefore rejected under the same rationale.

Regarding **Claim 13**, Roth teaches:

The method of claim 10, wherein generating comprises adding a number of
recorded task scores to said sets of task scores,

Page 352 last para, the development of various scores by group members
suggests the development of more than one set of scores, i.e. thus adding a number of
recorded scores to a base set of scores.

and using productivity scores assigned to said recorded task scores for
each of said evaluators as one of said evaluator parameters

page 357 last para, correlation coefficients are compared across the evaluators –
these correlation coefficients are based on the recorded task scores provided by the
evaluators.

4.   **Claims 2, 3, 15-19, 22, 24, 25-32** are rejected under 35 U.S.C. 103(a) as being
unpatentable over **Roth** in view of **Edwards**, Jeffrey R; Parry, Mark E; "On the Use of
Polynomial Regression as an alternative to Difference Scores in Organizational
Research", Dec 1993, The Academy of Management Journal, Vol. 36, NO.6, pp.1577-
1613, hereinafter **Edwards**.

Regarding **Claim 2**, Roth teaches the need to combine various functions in a
weighted manner (i.e. weights are associated with the functions so they can be added
together to result in a total number - as per the MAU approach). However Roth does
not teach using linear regression techniques to determine the weights for the
combination of the individual utility functions as per:

The method of claim 1, wherein said analyzing comprises applying linear regression techniques to said productivity scores.

Edwards teaches:

wherein said analyzing comprises applying linear regression techniques to said productivity scores.

page 1579 last para (see also equation 6 on this page).

Edwards teaches applying linear regression techniques to understand the relationship between measurable factors such that coefficients can be determined so those factors can be combined (the factors, e.g. X and Y, are functions to be combined to provide a score).

As noted above, Roth's teaches that there are separate functions, i.e. utility functions, that are weighted to be combined such that a score results.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Roth to include the determination of coefficient values as provided by the linear regression techniques of Edwards, because it would improve the determination of the coefficients of the utility functions to be combined by using the well known and reliable technique of linear regression (i.e. polynomial linear regression).

Regarding **Claim 3**, Roth notes that utility functions can be used in evaluation of employee performance (page 1 last para - page 2 first para). These utiliity functions combined provide a single output value (i.e. a productivity value). Roth teaches individual tasks that a person performs where the tasks are combined in a utility function. Roth does not teach a second order polynomial of the form $A + B X + C X^2$, where the A, B and C are constants and the productivity score is a second order polynomial in X (where X is a task).

However, the idea of using a second order polynomial with coefficients (i.e. an A, B and C) is old and well known in the art as a modeling approach as taught by Edwards (see page 1579 equation 6 - here the total score is a function of A (i.e. B sub o), B (i.e. B sub 1) and C (i.e. B sub 3) in the second order with respect to X (including the B and C terms times X and X^2, respectively).

Edwards teaches that using polynomial regression provides a way to achieve a predictable result (since the mathematics utilized by regression are very well known in the art) – see page 1578 para 1.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Roth to include the polynomial regression approach of Edwards, because it would have improved the estimation of productivity using a well

known approach of regression to provide a predictable result in estimating the effects of

the coefficients of tasks for use in an equation that calculates productivity

Claims 15 and 16 recite similar limitations to those addressed by the rejection of

Claims 2 and 3 above, and are therefore rejected under the same rationale.

Claims 17-19 recites similar limitations to those addressed by the rejection of

Claims 10-11 and 13 above by Roth, and are therefore rejected under the same

rationale.

Claim 22 recites similar limitations to those addressed by the rejection of **Claims

2 and 3** above by Roth and Edwards, and are therefore rejected under the same

rationale.

Claim 24 recites similar limitations to those addressed by the rejection of **Claim

8** above by Roth, and is therefore rejected under the same rationale.

Claim 25 recites similar limitations to those addressed by the rejection of **Claim

9** above by Roth, and is therefore rejected under the same rationale.

Claim 26 recites similar limitations to those addressed by the rejection of **Claim

10** above by Roth, and is therefore rejected under the same rationale.

Claim **27** recites similar limitations to those addressed by the rejection of **Claim 11** above by Roth, and is therefore rejected under the same rationale.

Claim **28** recites similar limitations to those addressed by the rejection of **Claim 13** above by Roth, and is therefore rejected under the same rationale.

Claim **29** recites similar limitations to those addressed by the rejection of **Claim 22** above by Roth, and is therefore rejected under the same rationale. Furthermore regarding **Claim 29**, Roth and Edwards do not explicitly teach performing his method using computer readable medium containing instructions for causing a computer system to perform method steps, however Official Notice is taken that performing the method steps taught by Roth and Edwards using computer software running on a computer system is old and well known in the art. Using this approach is known to make method steps faster and more efficient since they are running on a computer. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Roth and Edwards to perform their method steps using computer software running on a computer system, because it would make performance the of the method steps faster and more efficient since they are running on a computer.

Claims 30-32 recite similar limitations to those addressed by the rejection of

Claims 10-11 and 13 above by Roth, and are therefore rejected under the same

rationale.

5.   **Claims 4, 5, 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over

Roth in view of **Trocine**, Linda; Malone, Linda; "Finding Important Independent

Variables Through Screening Designs: A comparison of methods", 2000, Proceedings

of the 2000 Winter Simulation Conference, pp.749-754, hereinafter **Trocine**.

Regarding **Claim 4**, Roth teaches the use of MAU variables with weights to

determine a productivity score, but Roth does not teach using a design of experiments

(i.e. a DOE, aka a response surface methodology) as per:

The method of claim 1, comprising selecting a centralized composite

design as said model design.

Trocine teaches:

selecting a centralized composite design as said model design.

Page 750 column 2 para 1 under sect 2.1, a factorial design is a centralized

composite design. Trocine teaches limiting the number of variables (i.e. a limited

factorial design) to limit the number of model runs that need to be performed (e.g. with

k=15 a fractional factorial still means that 128 experiments or runs of the model ned to

be performed).

Trocine teaches the use of fractional factorial experiments as a way to identify

significant variables in a dataset (see page 749 column 1 para 1 under section 1).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Roth, regarding using A MAU approach to identify

factors to be combined with coefficients, to include the step of using a factorial design

DOE to identify those variables, because it would provide a way to estimate those

coefficients using proven DOE techniques and thus improve the estimation of

productivity using the MAU approach taught by Roth.

Regarding **Claim 5**, Roth does not teach:

wherein generating said sets of task scores comprises:

determining whether said sets of task scores exceed a predetermined

number; and

modifying said centralized composite design by a fractional factorial when

said sets of task scores exceed said predetermined number.

Trocine teaches that screening designs to identify variables can result in

excessive runs or experiments as provided by a full factorial and even a fractional

factorial can result in a large number of experiments.

Trocine teaches limiting based upon a predetermined number of variable (page

751 column 2 bottom para) Trocine teaches that the combinations of runs required by a

fractional factorial can result in a large number of required experiments and the desired

result of using a fractional factorial is to avoid the excessive number of runs required by a full factorial. The guidelines suggested by Trocine teach the determining and modifying steps - i.e. limiting the number of variables to 20.

It would have been obvious to one of ordinay skill in the art at the time of the invention to modify the teachings of Roth and Trocine to further include limiting the task scores by a predetermined number in performing a fractional factorial, because it would make performance of the DOE manageable by limiting the number of experimental runs required.

Claim 14 recites limitations similar to those addressed by the rejection of **Claim 5** above, and therefore is rejected under the same rationale.

6.   **Claims 6, 7, 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Roth** in view of Jacobson, Tom; "Reaching New Heights", June 1999, Credit Union Management, Madison, Vol. 22, Iss. 6, p.50, 4 pgs. (hereinafter Jacobson).

Regarding **Claim 6**, Roth does not teach:

The method of claim 1, comprising:

calculating statistical measures for said performance measures over a time period; and

identifying employees having performance measures outside a range of said statistical measures.

and as per Claim 7,

The method of claim 6, comprising identifying trends in said performance measures over multiple ones of said time period.

Page 3 para 2, the charting of an agents performs suggests a continual tracking of the agent's performance to identify how they are performing over time.

Jacobson teaches, as per Claim 6:

calculating statistical measures for said performance measures over a time period; and

page 3 para 2-3, variance management is calculating statistical measures for an agent over a period of time

identifying employees having performance measures outside a range of said statistical measures.

Page 3 para 4, employees are identified which fall outside the control limits (i.e. the range of statistical measures, since the article is discussing using SPC charts).

And as per Claim 7

comprising identifying trends in said performance measures over multiple ones of said time period.

Page 3 para 2, the charting of an agents performs suggests a continual tracking of the agent's performance to identify how they are performing over time.

Jacobson teaches that this approach provides a continuous improvement approach to managing a company such that employees are continuously improving (page 4 #8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Roth to include the SPC charting techniques of Jacobson, because it would improve employees performance by instilling a sense of continuous improvement in the workforce.

Claim 33 recites similar limitations to those addressed by the rejection of **Claim 6** above by Roth and Jacobson, and is therefore rejected under the same rationale.

7.   **Claims 20 and 21** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Roth** in view of **Edwards** and further in view of **Jacobson**.

Regarding **Claim 20**, Roth and Edwards do not teach:

calculating statistical measures for said performance measures over a time; and

identifying employees having performance measures outside a range of said statistical measures.

And as per **Claim 21**

comprising identifying trends in said performance measures over multiple ones of said time period.

Jacobson teaches:

calculating statistical measures for said performance measures over a time period; and

page 3 para 2-3, variance management is calculating statistical measures for an agent over a period of time

identifying employees having performance measures outside a range of said statistical measures.

Page 3 para 4, employees are identified which fall outside the control limits (i.e. the range of statistical measures, since the article is discussing using SPC charts).

And as per Claim 21

comprising identifying trends in said performance measures over multiple ones of said time period.

Page 3 para 2, the charting of an agents performs suggests a continual tracking of the agent's performance to identify how they are performing over time.

Jacobson teaches that this approach provides a continuous improvement approach to managing a company such that employees are continuously improving (page 4 #8).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Roth and Edwards regarding using a model that provides a productivity calculation for individual employees to include the SPC charting techniques of Jacobson based on productivity scores provided by this model, because it would improve employees performance by instilling a sense of continuous improvement in the workforce.

8.   **Claim 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Roth** in view of **Edwards** and further in view of **Trocine**.

Regarding **Claim 23**, Roth and Edwards teaches the limitations of **Claim 22** above, but Roth and Edwards do not teach:

determining whether said sets of task scores exceed a predetermined number; and

modifying said centralized composite design by a fractional factorial when said sets of task scores exceed said predetermined number.

Trocine teaches:

determining whether said sets of task scores exceed a predetermined number; and

modifying said centralized composite design by a fractional factorial when said sets of task scores exceed said predetermined number.

Trocine teaches that screening designs to identify variables can result in excessive runs or experiments as provided by a full factorial and even a fractional factorial can result in a large number of experiments.

Trocine teaches limiting based upon a predetermined number of variable (page 751 column 2 bottom para) Trocine teaches that the combinations of runs required by a fractional factorial can result in a large number of required experiments and the desired result of using a fractional factorial is to avoid the excessive number of runs required by a full factorial. The guidelines suggested by Trocine teach the determining and modifying steps - i.e. limiting the number of variables to 20.

It would have been obvious to one of ordinay skill in the art at the time of the invention to modify the teachings of Roth and Edwards to further include limiting the task scores by a predetermined number in performing a fractional factorial, because it would make performance of the DOE manageable by limiting the number of experimental runs required. The combination of Roth and Edwards teaches determining a polynomial model that produces a productivity score – modifying these teachings provides a predictable result by optimizing Roth and Edward's polynomial system using the well known DOE techniques taught by Trocine.

9.   Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Roth** in view of **Jacobson** and further in view of **Edwards.**

Regarding **Claim 34**, Roth and Jacobson teach the limitations addressed in

Claim 6 above, and Roth and Jacobson do not teach:

a second order polynomial of the form A + B X + C X^2, where the A, B and C

are constants and the productivity score is a second order polynomial in X (where X is a

task).

However, the idea of using a second order polynomial with coefficients (i.e. an A,

B and C) is old and well known in the art as a modeling approach as taught by Edwards

(see page 1579 equation 6 - here the total score is a function of A (i.e. B sub o), B (i.e.

B sub 1) and C (i.e. B sub 3) in the second order with respect to X (including the B and

C terms times X and X^2, respectively).

Edwards teaches that using polynomial regression provides a way to achieve a

predictable result (since the mathematics utilized by regression are very well known in

the art) – see page 1578 para 1.

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the teachings of Roth and Jacobson to include the polynomial

regression approach of Edwards, because it would have improved the estimation of

productivity using a well known approach of regression to provide a predictable result in

estimating the effects of the coefficients of tasks for use in an equation that calculates

productivity.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jonathan G. Sterrett whose telephone number is 571-

272-6881. The examiner can normally be reached on 8-6.

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Beth Boswell can be reached on 571-272-6737.   The fax phone number for

the organization where this application or proceeding is assigned is 703-872-9306.

11.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JGS 10-7-08

 /Jonathan G. Sterrett/

Primary Examiner, Art Unit 3623